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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/941,909	08/29/2001	Jakob Barak	4873CIPCON	7948

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EXAMINER

YU, JUSTINE ROMANG

ART UNIT PAPER NUMBER

3764

DATE MAILED: 03/18/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/941,909

Applicant(s)

BARAK ET AL.

Examiner

Justine R Yu

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 February 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 29-42 and 73-141 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 29-42 and 73-141 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3, 4.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

1. This office action is responsive to the preliminary amendment filed on 2/11/03. As directed by the amendment, claims 43-72 were canceled, and claims 73-141 were added. Thus, claims 29-42 and 73-141 are presently pending in this application.

Specification

~2. The disclosure is objected to because of the following informalities: the current status of the related applications must be provided.

Appropriate correction is required.

Drawings

3. This application, filed under former 37 CFR 1.60, lacks formal drawings. The informal drawings filed in this application are acceptable for examination purposes. When the application is allowed, applicant will be required to submit new formal drawings. In unusual circumstances, the formal drawings from the abandoned parent application may be transferred by the grant of a petition under 37 CFR 1.182.

Claim Rejections - 35 USC § 112

4. Claims 29-42 and 73-141 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The claims are replete with errors too numerous to mention specifically. The claims should be revised carefully. Some examples of such errors are:

In claim 29, “temporo-spatial regime” lacks antecedent basis.

In claim 30, the term “the fractional decrease” lacks antecedent basis. In addition, it is not clear what is meant by “the fractional decrease” and how to define it?

In claim 36, “a longitudinal axis” is unclear as to which element has that longitudinal axis. On page 3, the term “a sleeve” is confusing as to whether or not a new sleeve is being referred.

In claim 73, “defining at least three intra-cell compartments” is not clear as whether or not new compartments are being referred. In addition, it is not clear how to define the second circumference of the sleeve. The term “said second circumference being defined as a circumference passing through center points of each contiguous inflated intra-cell compartment” is confusing and misdescribed since such description contradicts the traditional meaning of the circumference. According to the Webster’s II new Riverside University Dictionary, the circumference is the **boundary** line of a circle or the **boundary** line of a closed curvilinear figure.

In claim 75, the terms “a longitudinal axis”, “defining at least three intra-cell compartments”, “form a sleeve”, and “second circumference being defined as a circumference passing through center points” are confusing.

In claim 92, “about a perimetric cell bond” and “along compartmental bonds” are indefinite because it is not clear what is the structural relationship between the device and the cell bond or compartmental bonds. In line 9, “bond to” is not clear as to where is the perimetric cell being bonded.

In claim 101, “control unit for determining a sequence of cell inflation and deflation” is confusing. It is not clear what is meant by determine the sequence of a cell’s inflation and deflation, and how to **determine the sequence of a single cell’s** inflation and deflation?

In claims 105 and 135, “the primary axis” lacks antecedent basis.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

6. Claims 92-100, 104, 112, 113-124, and 125-127 are rejected under 35 U.S.C. 102(e) as being anticipated by Hansen et al (6,254,556).

Hansen teaches a jacket having a cell 28 (figures 9 and 10); coupling means (49 54, 56) so that the cell could be arranged to form a sleeve which having a first and second

circumferences when the cell is deflated and inflated, respectively; inflating means including motor 108; control means including adjustable control 109, and valve 128. Since Hansen's cell has a substantially cylindrical shaped compartments when it is inflated, it is inherent that the ratio of second circumference to the first circumference could be greater than 0.64.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 29-36, 39, 40, 73-75, 78-79, 81, 83-89, 92-95, 97-102, 105, 108, 109, 112-128, 131, 132, 135, 138, 139 as best understood are rejected under 35 U.S.C. 103(a) as being unpatentable over Whitney (Pat. No. 4,597,384) in view of JP 182,771 and Oguri et al (Pat. No. 5,938,628).

Whitney teaches a compression sleeve comprising a plurality of inflatable cells (74, 76, 78) formed of inner and outer shells (see figure 5). Notes that the feature of choosing a durable flexible material for the shell is necessary and notoriously old and well known in the art.

Whitney's inflatable cell lacks at least three intra-cell compartments. However, JP 182,771 teaches an inflatable cell having a plurality of intra-cell compartments, and the inner and outer shells being bonded together along compartmental bonds within the perimetric cell bond to define the plurality of intra-cell compartments, and the compartmental bonds including

perforations to allow for confluent air flow between the compartments, see figures 1 and 4.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to divide Whitney's inflatable shell with a plurality of intra-cell compartments as taught by JP182,771, so as to provide more effective compressions to the limb.

Whitney discloses three cells rather than two cells. However, the feature of choosing two shells such as to eliminating the middle cell in Whitney's sleeve is considered as an obvious design choice, if one of ordinary skill in the art desired to treat a shorter portion in the limb, one would have looked to Whitney's sleeve and seen that by eliminating the middle cell would provide advantageous benefit such as to be easier to fit the sleeve to a desired location.

The modified Whitney's compartments each having an irregular shaped rather than a substantially rectangular shape when deflated. However, the feature of choosing a rectangular shaped compartment is considered as an obvious design preference within the knowledge of one skilled in the art, since such shape is well known in the art, see figure 1 of JP182,771.

Furthermore, since Whitney's shells have substantially equally in length, see figure 5 of Whitney, it would have been obvious that the modified Whitney's compartments having substantially cylindrical in shape when inflated.

The modified Whitney's reference lacks a detail description of the method for calculating the circumferences. Notes that the feature of choosing a particular circumference is considered as an obvious design choice within the knowledge of one skill in the art, since the size of the circumference is not a criticality. Furthermore, the method of calculating the circumference and the feature of choosing a particular fractional decrease in the circumference as recited are

considered as obvious design preferences within the knowledge of one skilled in the art, as is necessary and inherent upon various applications.

Whitney does not explicitly disclose that his pneumatic source is a hand-held pump unit including a control unit. Figure 4 of Oguri shows each air bag (sleeves) coupled to an intake/exhaust instrument 13 (portable fluid source unit) via a conduit 14. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide Whitney's sleeve with a pump unit as taught by Oguri, in order to control the pressure within the selected sleeve. Notes that a change in the size of a prior art device is a design consideration within the skill of the art. Thus, such feature of having a hand-heldable pump unit fails to patentably define over the prior art.

In regard to claim 40, the modified Whitney's reference does not explicitly disclose that the conduit comprising a single tube. However, the feature of having a conduit comprising a single tube extending from the compressor and being connected to a manifold is considered as an obvious design choice, since it is well known in the art.

9. Claims 37, 38, 41, 76, 77, 80, 90, 103, 106, 107, 110, 129, 130, 133, 136, 137, and 140 are rejected under 35 U.S.C. 103(a) as being unpatentable over Whitney (Pat. No. 4,597,384) in view of JP 182,771 and Oguri et al (Pat. No. 5,938,628) as applied to claim 29 above, and further in view of Cariapa et al (Pat. No. 5,891,065).

In regard to claims 37 and 38, the modified Whitney device has an electrical coupling for connecting to the AC power supply, see figure 7 of Oguri reference. The modified Whitney reference lacks a rechargeable battery. However, Cariapa teaches a controller 18 comprising a

rechargeable battery (164, 164.1). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the modified Whitney's instrument with a rechargeable battery power supply as taught by Cariapa, so that the instrument would be more portable.

In regard to claim 41, the modified Whitney's reference lacks means in the conduit for indicating to the unit an appropriate inflation, deflation and pressure sequence. However, Cariapa teaches a sensor 138 being coupled to each conduit, see figure 3. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide Oguri's conduit with a sensor as taught by Cariapa, in order to indicate the pressure and pressure sequence in the sleeves.

10. Claims 42, 82, 91, 96, 104, 111, 134, and 141 are rejected under 35 U.S.C. 103(a) as being unpatentable over Whitney (Pat. No. 4,597,384) in view of JP 182,771 and Oguri et al (Pat. No. 5,938,628) as applied to claim 29 above, and further in view of Polando (Pat. NO. 5,368,547)

The modified Whitney's device lacks a pressure relieve valve or self operated valve. However, Polando teaches a pressure relieve valve 66 being coupled to the sleeve. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the modified Whitney's device with a pressure relieve valve as taught by Polando, in order to prevent over pressurized the sleeve.

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11. Claims 29-36, 39-42 and 73-75, 78-105, 108128, 131-135, and 138-141 as best understood are rejected under 35 U.S.C. 103(a) as being unpatentable over Whitney (Pat. No. 4,597,384) in view of JP 182,771 and Peeler et al (Pat. NO. 5,575,762).

Whitney teaches a compression sleeve comprising a plurality of inflatable cells (74, 76, 78) formed of inner and outer shells (see figure 5). Notes that the feature of choosing a durable flexible material for the shell is necessary and notoriously old and well known in the art.

Whitney's inflatable cell lacks at least three intra-cell compartments. However, JP 182,771 teaches an inflatable cell having a plurality of intra-cell compartments, and the inner and outer shells being bonded together along compartmental bonds within the perimetric cell bond to define the plurality of intra-cell compartments, and the compartmental bonds including perforations to allow for confluent air flow between the compartments, see figures 1 and 4. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to divide Whitney's inflatable shell with a plurality of intra-cell compartments as taught by JP182,771, so as to provide more effective compressions to the limb.

Whitney discloses three cells rather than two cells. However, the feature of choosing two shells such as to eliminating the middle cell in Whitney's sleeve is considered as an obvious design choice, if one of ordinary skill in the art desired to treat a shorter portion in the limb, one would have looked to Whitney's sleeve and seen that by eliminating the middle cell would provide advantageous benefit such as to be easier to fit the sleeve to a desired location.

The modified Whitney's compartments each having an irregular shaped rather than a substantially rectangular shape when deflated. However, the feature of choosing a rectangular

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shaped compartment is considered as an obvious design preference within the knowledge of one skilled in the art, since such shape is well known in the art, see figure 1 of JP182,771.

Furthermore, since Whitney's shells have substantially equally in length, see figure 5 of Whitney, it would have been obvious that the modified Whitney's compartments having substantially cylindrical in shape when inflated.

The modified Whitney's sleeve has same structure as recited but lacks a detail description of the method for calculating the circumferences. Notes that the feature of choosing a particular circumference is considered as an obvious design choice within the knowledge of one skill in the art, since the size of the circumference is not a criticality. Furthermore, the method of calculating the circumference and the feature of choosing a particular fractional decrease in the circumference as recited are considered as obvious design preferences within the knowledge of one skilled in the art, as is necessary and inherent upon various applications.

The modified Whitney's reference further lacks a control means for determining the temporo-spatial regime of cell inflation. However, Peeler teaches a control system 10 including an air compressor 20 for intermittently inflating the cell and for determining the temporo-spatial regime of cell inflation. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the modified Whitney's sleeve with the control system as taught by Peeler, in order to provide a better pressure control within the cells.

Double Patenting

12. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible

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harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

13. Claims 29-42 and 73-141 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-7 of U.S. Patent No. 6,478,757. Although the conflicting claims are not identical, they are not patentably distinct from each other because the difference between the patented claims and the proposed application claims are minor and obvious from each other. The instant claims are broader version of the patented claims (i.e. the instant claims 29, 36, 73, 75, 83, 85, 87, 92, 97, 105, 112, 122, and 135 do not include the structural element such that intra-cell compartments of the first and second cells being interdigitated as in the patented claim 1). Any infringement over the patent would also infringe over the instant claims. In the instant claims, the structural elements are included in the patented claims 1-7. Hence, the instant claims do not differ from the scope of the patented claims 1-7. In 214USPQ 761, *In re Van Ornum and Stang*, broad claims in the continuing application were held to be obvious double patenting over previously narrow claims.

14. Claims 29-42 and 73-141 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-7 of U.S. Patent No. 6,494,852. Although the conflicting claims are not identical, they are not patentably distinct

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from each other because the difference between the patented claims and the proposed application claims are minor and obvious from each other. The instant claims are broader version of the patented claims (i.e. the instant claims 29, 36, 73, 75, 83, 85, 87, 92, 97, 105, 112, 122, and 135 do not include the structural element such that intra-cell compartments of the first and second cells being interdigitated as in the patented claim 1). Any infringement over the patent would also infringe over the instant claims. In the instant claims, the structural elements are included in the patented claims 1-7. Hence, the instant claims do not differ from the scope of the patented claims 1-7. In 214USPQ 761, In re Van Ornum and Stang, broad claims in the continuing application were held to be obvious double patenting over previously narrow claims.

Conclusion

15. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. JP 8-38562, Bates et al (2,896,612), Proctor et al (5,109,832), Neeman et al (5,014,681), Siemssen et al (5,179,941), Rosenberg et al (5,713,954), Buster (5,810,750), Mummert (4,418,690), Wright et al (4,773,397), Apstein (3,811,431), Taylor et al (3,892,229) are cited to show different inflatable cells.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Justine R Yu whose telephone number is (703)308-2675. The examiner can normally be reached on 8:30am - 6:00Pm.

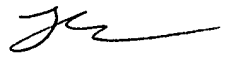
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nick Lucchesi can be reached on (703)308-2698. The fax phone numbers for the

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organization where this application or proceeding is assigned are (703)305-3590 for regular communications and (703)305-3590 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)308-0858.



Justine R Yu
Primary Examiner
Art Unit 3764

JY
March 13, 2003